

**Notice of Allowability**

Application No.

10/643,073

Examiner

Jean B Jeanglaude

Applicant(s)

CRAVEN ET AL.

Art Unit

2819

*pl*

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment file on 04-02-04.
2. ☒ The allowed claim(s) is/are 64-162.
3. ☒ The drawings filed on 18 August 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

*Jean Bruner Jeanglaude*  
**JEAN JEANGLAUE**  
**PRIMARY EXAMINER**

### Reasons For Allowance

Claims 64 – 162 now claims 1 – 99 are allowable.

1. The following is an examiner's statement of reasons for allowance: in combination with other limitations of the claims the prior arts made of record fail to suggest an apparatus and method for decoding an encoded signal representing a plurality of encoded channel signals, one or more least significant bits and information representing a gain of coefficient wherein the apparatus and method comprise a means for generating a modified first channel signal by applying a first primitive matrix quantiser to a first channel signal in the plurality of channels wherein the first channel signal is multiplied by a gain coefficient and means for combining the multiplied channel with the one or more least significant bits. Also, in combination with other limitations of the claims the prior art made of record fail to suggest an apparatus and method for encoding a plurality of signals comprising a means for generating an encoded signal by applying a matrix to the plurality of channel signals wherein the matrix is implemented by a cascade of matrix quantisers and has matrix outputs that provide a plurality of substreams of encoded information, a first substream is provided by a strict subset of the matrix outputs and the cascade of primitive matrix quantisers comprises a first primitive matrix quantiser having coefficients such that an output of the first primitive matrix quantiser is a first downmix channel signal in the first substream that corresponds to a first channel of the downmix specification multiplied by a scaling factor and a second primitive quantiser following the first primitive matrix quantiser in the cascade of primitive matrix quantisers and having a coefficient multiplying the first

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downmix channel signal that is substantially zero. Moreover, the prior arts made of record fail to suggest an apparatus and method for encoding a plurality of channel signals comprising a means for generating an encoded signal by applying a matrix to the plurality of channel signals, wherein the matrix is implemented by a cascade of primitive matrix quantisers and has matrix outputs that provide a plurality of substreams of encoded information, a first substream is provided by a strict subset of the matrix outputs, and the first substream comprises two or more channel signals in the downmix specification that have a cross-correlation with one another that is substantially equal to zero.

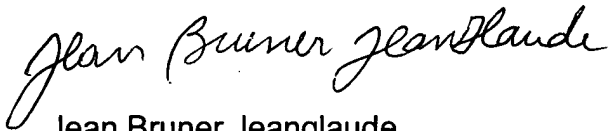
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B Jeanglaude whose telephone number is 571-272-1804. The examiner can normally be reached on Monday - Friday 7:30 A. M. - 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Tokar can be reached on 571-272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jean Bruner Jeanglaude  
April 6, 2004

**JEAN JEANGLAUDE**  
**PRIMARY EXAMINER**